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“I couldn’t play with anyone that day... I’m so frustrated”: Making Meaning Out of Frustrating
Experiences in Early Childhood

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Abstract

The aim of the present study was to explore the content and sources of children's independently narrated stories about personal experiences with frustration. Additionally, the study examined internal state language in stories that shifted to a resolution or positive emotional tone. Seventeen children (ages 46 – 61 months) attending a laboratory preschool, and twenty children (ages 65 – 78 months) attending kindergarten at a public elementary school shared stories about “a time when you were frustrated.” Stories were audio-recorded, transcribed, and coded for reports of total, unique, negative and positive emotions, cognitive states, emotional tone shift/resolution, and resolution strategies. Grounded theory methodology was used to develop coding schemes for the content and sources of children's frustration. Children narrated experiences with frustration regarding inclusion in relationships, as well as involving instrumental, physical and natural causes. The sources of frustration included peers, siblings, parents and external forces. Stories that were resolved or shifted to a positive emotional tone included more internal state talk (emotion talk, unique emotion terms, negative emotion terms, positive emotion terms). To resolve frustrated stories, children used a variety of strategies observed in Davidson & Welliver's (under review) research on resolving sad stories. Descriptive analysis suggested internal state talk and strategy usage varied by content and source of frustration. Results provide a foundation for studying frustration narratives in early childhood and supply new understandings of the ways young children make meaning out of frustrating experiences through emotional reminiscing.

Key words: frustration, emotional reminiscing, redemption narratives

“I couldn’t play with anyone that day... I’m so frustrated”: Making Meaning Out of Frustrating Experiences in Early Childhood

Experiences with frustration arise on a regular basis for young children as their personal desires for autonomy and initiative with social partners expand and as they begin interacting with peers in preschool contexts. The study of frustration in early childhood has received much attention from researchers focused on temperament (Calkins & Johnson, 1998; Calkins, Dedmon, Gill, Lomax, & Johnson, 2002) and one frequently cited definition of frustration is, “negative affect related to interruption of ongoing tasks or goal blocking” (Putnam, Gartstein, & Rothbart, 2006, p. 399). Recognizing the importance of managing feelings with frustration, many early social-emotional development curriculums for educators and caregivers address this particular emotion (Gottman & DeClaire, 1997; Shure, 2000). These curriculums recognize that as young children are beginning to interact with same age peers for the first time, they encounter frustration as they learn to manage their own goals and desires with those of their peers. Experiences with frustration provide an opportunity for young children to begin to integrate cognition with affect, as they consider their own wants and feelings while they also begin to develop the perspective taking and theory of mind abilities that allow them to consider others’ thoughts, desires and feelings (Gottman & DeClaire, 1997; Shure, 2000). Frustration explicitly often involves a specific problem for which a solution may be generated. Early experiences with frustration, therefore, provide a unique opportunity for the development of social-emotional problem solving skills (Gottman & DeClaire, 1997; Shure, 2000). Emotion Coaching (Gottman & DeClaire, 1997) and I Can Problem Solve programs (Shure, 2000) emphasize how caregivers can respond to and scaffold children’s frustration in the moment as the emotion is occurring.

Despite the recognition that frustration is a frequently appearing emotion in early childhood that has implications in the promotion of social-emotional problem solving skills, little attention has been given to how children themselves experience and make sense of their own frustration. A great deal of research has focused on children's experiences with and sense-making of anger and sadness (Bird & Reese, 2006; Gobbo & Raccanello, 2011; Goodvin & Romdall, 2013; Peterson & Biggs, 2001), but frustration, a distinct emotional experience that involves elements of the two, has received less attention from researchers and early childhood educators. Knowing how children directly experience and make sense of their own experiences with frustration is critical for understanding the role of this salient emotion in early childhood. Further, the reviewed research on frustration in early childhood largely addresses the emotion as it occurs in the moment (Gottman & DeClaire, 1997; Shure, 2000; Stanbury & Sigman, 2000), and from the perspective of caregivers (Calkins & Johnson, 1998; Calkins, Dedmon, Gill, Lomax, & Johnson, 2002). Narrative research provides an ideal methodology and framework to supplement current research on frustration in early childhood. Narratives capture how individuals use language to reminisce upon, construct stories of and make meaning out of past emotional experiences. Emotional reminiscing in narrative research importantly provides a revisiting to the emotion with diminished arousal that allows for greater emotional and cognitive processing (Engel, 1995).

Making Sense of Emotional Experiences via Narrative and Internal State Talk

Across the lifespan, we construct narratives to make sense of the world and make meaning out of our experiences (Bruner, 1990). Narratives include both the landscape of action, referring to the who, what, when and where in the explicit plot, and the landscape of consciousness, referring to the thoughts, feelings and intentions of characters that makes up the

implicit plot (Bruner, 1990; Walton & Davidson, 2017). Fivush (1993) suggests it is the subjective language included in the landscape of consciousness that links our past experience to our current self and allows for personal communication of what is important to the storyteller, and what is worthy of sharing with the listener.

In early childhood, children begin utilizing narrative to begin to make sense of their own emotional experiences and create a sense of self (Bird & Reese, 2006; Engel, 1995; Fivush, 1993). Co-construction of narratives with caregivers develops into independent construction of narrative accounts across the preschool years (Fivush, 1993). Caregivers often scaffold children in co-constructed narratives by encouraging discussion of the thinking and feeling related to the events of the story. Including thoughts, feelings and intentions in narrative provides children early experience figuring out what is personally meaningful about particular events, allowing for an integration of narratives into a sense of self (Bird & Reese, 2006; Fivush, 1993). Through interactions in close relationships, such as those with caregivers, siblings and peers, children's ability to recognize, understand and label internal states develops gradually from early to middle childhood (Hughes, Lecce, & Wilson, 2007). Within the development of internal state language, preschool children can label and discuss their own and others emotions between 18 and 36 months (Hughes et al., 2007), whereas cognitive state terms begin to be featured in children's vocabulary between ages 2 and 3 years (Furrow, Moore, Davidge, & Chiasson, 1992). Subsequently, preschool children attend more to emotion terms than to cognitive states in their conversations (Hughes et al., 2007). Children's inclusion of cognitive state terms increased from 4- to 7-years, while inclusion of emotion talk remained stable, further indicating cognitive state talk development is occurring later than emotion talk development (Leach, Howe, & DeHart, 2017). The more abstract nature of cognitive states may be more challenging to grasp, and

require increasing experience with perspective taking skills that develop through sophisticated relational interactions and increasing thinking and planning skills (Leach et al., 2017). Emphasis on early emotion coaching from caregivers may also contribute to this difference (Gottman & DeClaire, 1997). Gains in perspective taking skills also contribute to the increasing incorporation of the thoughts, feelings and intentions of others into personal stories across early to middle childhood (Hughes et al., 2007). The early ability to discuss emotion talk and emerging ability to include cognitive states to narrate the landscape of consciousness enables children to use narrative reminiscing to understand and make personal meaning out of their early experiences.

Negative Emotional Reminiscing

Reminiscing on negative emotions provides a salient context for social-emotional development, as it allows children (and adults) to reflect upon the feelings and thoughts that were involved in an emotionally challenging situation. The cooling function of narrative allows for a revisiting of an experience with diminished emotional intensity (Engel, 1995). In the moment an emotion is experienced, the focus of the child and parent is often on direct management of emotion. The passage of time permits a more productive reflection of emotional experiences, as well as how they may be understood and resolved.

Children reminisce uniquely on positive and negative emotional events. Internal states referencing the child and other's thoughts and feelings are included more in stories about negative emotional events compared to positive (Baker-Ward, Eaton, & Banks, 2005; Davidson & Welliver, under review; Fivush et al., 2003b; Gobbo & Raccanello, 2011; Peterson & Biggs, 2001). This is consistent with Bruner's (1990) assertion that narrative functions to aid in sense making when events deviate from the norm. As experiences violate our cultural expectation that our lives will be positive, we must explain them in a comprehensible fashion (Bruner, 1990).

Making sense of negative experiences then inevitably requires an explanation more so than positive experiences; this explaining may include focusing on what the event means to the self, thus leading to inclusion of internal state language.

When children independently construct personal narratives they include more internal states in stories about negative compared to positive emotional events (Baker-Ward, Eaton, & Banks, 2005; Fivush et al., 2003a; Gobbo & Raccanello, 2011; Peterson & Biggs, 2001). Children's frequent inclusion of internal state talk in independently constructed negative emotion narratives is consistent with parent-child dyadic emotional reminiscing trends (Fivush, Sales, & Bohanek, 2008; Lagattuta & Wellman, 2002; Nolivos & Leyva, 2013). Parents and children included greater discussion of emotion causes, connections to mental states, and references to other's emotions in negative compared to positive emotional reminiscing (Lagattuta & Wellman, 2002). Such discussion is indicative of efforts at making sense of why emotions occur, and how they connect to one's own and others mental states. Both parents and preschool children included a more extensive emotion word vocabulary for negative emotional events compared to positive (Lagattuta & Wellman, 2002). Inclusion of more internal state language and wider range of emotions in negative emotion reminiscing across diverse contexts may suggest greater efforts towards meaning making.

Parent-child reminiscing on negative emotions in early childhood is associated with concurrent and longitudinal social-emotional development (Bird & Reese, 2006; Laible, 2011; Leyva & Nolivos, 2015). For example, a study of Chilean parents' scaffolding of their children's narratives found parents who ask questions about negative emotional experiences, but not positive, during pre-kindergarten conversations predicted children's self-regulation skills post-kindergarten (Nolivos & Leyva, 2015). The quality of mother child reminiscing about negative

emotional events has been linked specifically to children's emotional and relational understanding (Laible, 2011), and socially adaptive behaviors (Bekar, Steele, Shahmoon-Shanok, & Steele, 2018).

Much of the important work on negative emotional reminiscing in early childhood has focused on prominent negative emotions including sadness, anger and fear (e.g. "a story about a time you were sad/mad/scared") (Bird & Reese, 2006; Gobbo & Raccanello, 2011; Goodvin & Romdall, 2013; Peterson & Biggs, 2001). When discussing "sad," "mad" and "scared" stories, mothers and children included interpersonal themes of lost relationships, parental separation, conflict with parents, conflict with peers/siblings, and stories that focused on fictional characters. These conversations also included independent themes including lost objects or activities, thunder or noises, injury, scary activities (e.g. rollercoasters), or lack of skill (e.g. not being able to write one's name) (Fivush et al., 2003b). Research on sadness has shown similar narrative themes including times when a parent left and when the child got injured (Bird & Reese, 2006). These themes embody relevant topics of emotionally challenging situations in early childhood; it is feasible that young children's stories about frustration describe similar themes, and they may also reflect more nuanced themes regarding the interruption of ongoing tasks or blocked goals.

Leyva, Berrocal and Nolivos (2014) and Nolivos and Leyva (2013) examined differences in parent-child conversations about positive and negative emotional experiences by uniquely asking parents to choose the negative emotion via the unspecific prompt "a time when the child was unhappy." In these conversations about "a time when the child was unhappy" with 3- to 5-year-old children, the most common themes included peer conflict, loss and having wants denied (Nolivos & Leyva, 2013). Peer conflict, including "name calling or exclusion from play activities by peers," and wants denied, including "the child not being allowed to go outside to play or not

being given a desired toy,” both fit within the definition of frustration. When parents and young children were given the opportunity to discuss any unspecified negative emotional experience, two of the top three themes translate directly to the definition of frustration (Nolivos & Leyva, 2013). In conversations at the beginning of prekindergarten, negative emotion conversations frequently included interpersonal themes (75.7%), such as conflict with peer or sibling (45.9%), conflict with parents (39.2%), and personal themes (24.5%), such as injury or sickness (41.7%) (Leyva, Berrocal, & Nolivos, 2014), that also fit within the definition of frustration. These findings support the notion that frustration is a specific negative emotion that children are frequently experiencing and about which they are reminiscing between 3- and 6-years of age. Nolivos and Leyva’s (2013) title *Fun and frustrations* is reflective of the emphasis on frustration as a salient negative emotion in early childhood. Fivush et al. (2008) addressed the emotion of frustration in regards to populations with a specific illness (asthma), but no studies (to my knowledge) have directly captured narratives of children’s day-to-day, naturalistic experiences with frustration.

Resolving Negative Emotional Experiences via Narrative

Narrative research has demonstrated the salience of negative emotional events in our lives as we attend to our thoughts, feelings and desires more frequently in stories about negative (compared to positive) emotional experiences. Adults often identify negative emotional experiences as being the most personally meaningful, and it is these events in which they report more meaning-seeking goals (McLean, Pasupathi, & Pals, 2007). To make sense of these inevitable negative emotional experiences we encounter across the lifespan, we are motivated to use narrative to develop insights from and resolve the disruption (McLean et al., 2007). Redemption narratives describe this process in which a storyteller transforms an emotionally

negative experience to a subsequent positive experience that mitigates, or makes better the negative (McAdams, Reynolds, Lewis, Patten, & Bowman, 2001). In college students and adults, redemption narratives are associated with wellbeing, including increased life satisfaction, self-esteem, sense of coherence, and decreased depression (McAdams et al., 2001).

The origins of redemption narratives may begin in early childhood as some caregivers begin to do this while co-constructing narratives with children. Some parents begin to focus on resolving negative emotions during reminiscing conversations with their young children to help them cope with emotions and understand how experiences of negative emotions relate to the self (Bird & Reese, 2006; Fivush, 2003b; Leyva et al., 2014; Goodvin & Romdall, 2013). Bird & Reese (2006) found parent-child dyads who resolve negative emotional experiences using social resolutions have children with a more consistent self-concept (Bird & Reese, 2006). They suggested that discussing and resolving negative events enables children to make sense of the personal meaning of negative experiences. In a low-income Spanish-speaking sample, children's parents who presented resolutions during discussion of negative emotional experiences at the start of prekindergarten had better social problem-solving skills at the end of prekindergarten (Leyva et al., 2014). Parents in this sample who discussed only causes or attributions of negative emotions did not have children with better social problem-solving skills. Similarly, in a study of 4- to 5-year-olds reminiscing with parents, explaining and resolving, not simply attributing, negative emotions was associated with lower negative affect and more adaptive coping styles (such as support seeking) in children (Goodvin & Romdall, 2013). The dyadic resolutions in this study were associated with both mother and child emotion talk (Goodvin & Romdall, 2013), suggesting inclusion of internal state language may be a critical feature of resolving negative emotional experiences. In sum, these findings suggest parents are actively focusing on resolving

negative emotions through dyadic reminiscing in early childhood, and that doing so may have concurrent and longitudinal benefits for the child's social-emotional skills as they learn to cope with, regulate and appropriately express negative emotions.

Previous work has indicated children begin to independently reframe their stories about a time when they were sad to feature with a positive emotional tone or resolution at as early as 3-years-old (Davidson & Welliver, under review). Frustration and sadness are emotionally different experiences, however it is possible that children reframe stories about frustration as well. As previously mentioned, narrative research on negative emotional experiences in parent-child and child narratives largely focuses on emotions such as sadness, anger and fear. Frustration, distinct by definition from sadness, often involves a problem for which a solution may be generated. The emotional, but also cognitive aspect of having wants thwarted, often prompts emotion coaching from adults, and may include a resolution as a social problem-solving skill as children learn to negotiate interpersonal wants with peers, parents, and manage personal negative affect. The emotional and problem-based nature of frustration makes it worthy of attention in early childhood emotional reminiscing research.

The Present Study

The present study aimed to, first, address the lack of understanding about young children's meaning-making of frustration in the current literature by exploring the content and source of children's independently shared narratives of personal experiences with frustration. This exploratory analysis utilized a grounded theory approach in which theory is developed from, and grounded in, the data (Glaser & Strauss, 1967). Second, the study used descriptive analysis to explore the variation in internal state talk used across the content and source themes developed from the data. Third, the study investigated children's ability to independently shift

stories about frustration to a positive emotional tone/resolution. Previous work by Davidson and Welliver (under review) has suggested children as young as 3-years-old are able to shift stories about “a time when you were sad” to a positive emotional tone/resolution. Based on this work, I hypothesized children in the study (aged 4- to 6-years-old) would demonstrate this ability in stories about “a time when you were frustrated.” In previous work, children included more internal state language in stories about “a time when you were sad” that shifted to a positive emotional tone/resolution compared to those that did not shift (Davidson & Welliver, under review). Consistent with these findings, I expected stories about “a time when you were frustrated” that shifted to a positive emotional tone/resolution to include more internal state language (positive and negative emotion terms, and cognitive states). Fourth, the present study examined the strategies children used when they shifted their frustration stories to a positive emotional tone/resolution.

Method

Participants

Seventeen 4- to 5-year-old preschool children (8 girls, 9 boys, $M = 52.76$ months, $SD = 3.98$ months) attending a private, laboratory child development and student research center (CDC) affiliated with the Psychology department at a small liberal arts college in the southeastern United States participated in the present study. Most of the children at the CDC are in ethnically diverse upper-middle class families.

Twenty 5- to 6-year-old children (9 girls, 11 boys, $M = 71.05$ months, $SD = 4.08$) attending kindergarten at a public school in Austin, Texas also participated in the study. The majority of children are from non-economically disadvantaged families.

Procedure

The college's Institutional Review Board (IRB) approved the present study and I obtained parent consent for children's participation. To ensure that all children had a shared understanding of the emotion of frustration, the lead teacher and I first introduced the concept of frustration by putting on a puppet play (see Appendix A). Children shared examples of when they might feel frustrated and each drew a picture of a time they felt frustrated.

After receiving parent consent for the child's participation, I followed the story sharing protocol from Davidson and Welliver (under review). I asked each child if they wanted to share a story. If the child agreed, they were invited into a separate research space in the CDC or the hallway of the elementary school for a story to be shared and audio recorded. Children were invited to share a story "*about a time when you were/felt frustrated.*" I used an engaged, enthusiastic listening style with minimal scaffolding, including general prompts such as, "Tell me more," repetition of the child's statements (e.g., "he took your toy?!") or acknowledgement of the child's emotion "oh, that does sound frustrating"), and only asked questions to clarify the child's verbatim speech. When it appeared the child had finished sharing their story, I asked, "Are you all done with your frustrated story?" (see Appendix B). After receiving confirmation that the child was done with the story, I thanked the child and accompanied him/her back to the classroom.

Approximately one month after stories had been collected from all participating children, seven participants took part in a twenty-minute frustration narrative lesson (see Appendix C). A second round of stories was collected within one week after the lesson from all participating

children at the CDC. Three children declined to share a second story when given two opportunities.¹

Measures

Consistent with previous research by Davidson and Welliver (under review), all stories were transcribed verbatim from audio recordings and separated by subject-predicate units for coding (e.g., Fivush et al., 2003a). All identifying information was removed from the transcripts. Transcriptions were checked by a second trained researcher. All stories were coded using NVivo12 software.

Internal State Talk.

Emotion talk. Transcripts were coded to evaluate children's emotional expression using a coding scheme in Davidson and Welliver (under review), which was adapted from previous studies (Adams, Kuebli, Boyle, & Fivush, 1995; Bariola, Gullone & Hughes, 2011; Fabes, Eisenberg, Hanish & Spinrad, 2001). Emotion talk refers to the use of positive, negative, or other emotions, including behavioral manifestations of emotions such as hug, cry, and yell. Positive emotions include cheerfulness (e.g. happy, fun) or preference (e.g. favorite, liked). Negative emotions include anger (e.g. mad, angry), fear (e.g. afraid, scared), non-preference (e.g. didn't like, hate) or sadness (e.g. sad, miss, cry). Frustrated was added as a distinct negative emotion category to capture explicit references of frustration (e.g. frustrated, frustrating). 'Other' emotions include any emotion terms (e.g. brave, grumpy) that cannot be categorized according to

¹ A lesson plan was designed to encourage social-emotional problem solving skills in frustrated narratives. The small sample size between the lesson (n = 7) and control (n = 10) groups meant that statistical comparisons between the two groups not feasible or appropriate. Stories from both groups are included as one sample with the story, not child, as the unit of analyses. Additionally, most of these children were simultaneously participating in a 'philosophy for kids' group once a week where they discussed topics such as bravery, friendship and self-regulation that frequently addressed social-emotional problem solving skills.

the aforementioned categories. Each emotion term was coded according to whom the emotion was referring: self ("I was sad"), other ("She didn't like it"), or collective ("We hugged"). Total and unique emotion terms (e.g., reference to frustration twice and sadness once = 3 total and 2 unique emotions) were tallied. Two researchers obtained good reliability for this coding scheme (r 's: 0.99 - 1.0).

Cognitive states. To measure children's reports of internal cognitive states, transcripts were coded according to a coding scheme used by Davidson and Welliver (2018), which was adapted from previous studies (Peterson & Biggs, 2001; Zaman & Fivush, 2011). Cognitive states refers to utterances that provide information on the speaker's or others internal cognitive processes, such as intentions ("She was trying to push me"), desires ("I want"), and hypotheses ("I think"). Cognitive states were coded as own ("I wish"), other ("They didn't know"), collective ("We tried to"), or the listener ("Guess what happened next"). Total cognitive states were tallied. Two researchers achieved good reliability (r 's: ranged from 0.97 to 1.0 on four of the five categories. For the additional category ('collective' cognitive states), reliability was not computed due to the infrequent occurrence of this state; there was only one instance in which it occurred. The disagreement over this occurrence was resolved via discussion.

Shifts and Resolution Strategies.

Emotional tone shift. To measure the occurrence of a shift in the emotional tone of the story in children's frustrated stories, a coding scheme developed by Davidson and Welliver (under review) using a grounded theoretical approach was adapted for use (Strauss & Corbin, 1994). This process involved in-depth reading, note taking, and discussion of story examples to develop a coding scheme with three categories: *does not shift/stays frustrated* (i.e., a story that ends with description of the frustrated event or a negative emotional tone); *positive shift*

(includes a shift to a positive outcome, positive emotional state or focus on a positive feature of the event); *indeterminate* (story does not end on a positive note but is also not decidedly frustrated; this includes report of a completely different topic from the frustrated event). Two researchers achieved good reliability coding emotional tone shift in sad stories ($k = 0.97$), and the primary researcher then utilized this scheme to code shifts in frustration stories in the present study (see Appendix D).

Resolution strategies. I utilized a coding scheme developed by Davidson and Welliver (under review) to measure the various ways in which children shifted the emotional tone of a sad story to positive to capture resolution strategies employed by children in their frustration stories. The coding scheme was developed using a grounded theory approach with consideration of a coding scheme from Bird and Reese (2006). The coding scheme includes categories: no description, restoration to the original non-negative state, seeking or receiving support, solution-oriented attempts to mitigate the negative emotional experience, and positive reframing (see Table 1). Two researchers completed an in-depth reading and discussion of story examples to reach agreement on story codes.

Frustration content. To measure the content of frustration children reported in their narratives, I developed a coding scheme using a grounded theory approach. This included an iterative process of close readings of the stories to organize them by general and specific themes, followed by discussion with another researcher. The following agreed-upon themes were established: inclusion/relationship-based frustration, instrumental frustration, physical frustration, natural causes leading to frustration, and other unclassifiable frustrations (see Table 2). Frustration themes were coded for as present (1) or absent (0) in each narrative and are described further in the results section.

Frustration source. To measure the source of the frustration children reported in their stories, a coding scheme was developed using a grounded theory approach. The coding scheme captures frustrations focused on peers, parents, siblings and external forces. Through close readings of the stories, I organized them into themes and discussed these with another researcher to reach agreement on the categories (see Table 3). Frustration sources were coded as present (1) or absent (0) in each narrative and are described in detail in the results section.

Analyses

Analyses were completed using the story as the unit of analysis ($n = 54$). Stories from children in the CDC sample and kindergarten sample were combined for analysis. The primary interest of the study was to describe the sources of frustration in children's personal stories and internal state talk. Comparisons between preschool and kindergarten were not the focus of the study. For these reasons, the samples were combined to address the primary research questions of the present study. Comparisons between samples are discussed briefly in the results and discussion. Mostly descriptive, non-inferential statistics were used to analyze the data.

Results

Results are presented in line with the primary research questions.

What are the content themes and sources of children's frustrations?

Children narrated experiences of *instrumental frustration* regarding a desired object or outcome, such as wanting a toy, treat, or to be successful in a task or game. Instrumental frustrations occurred in 46.3% of stories. For example, Layla described her frustration with not getting a treat after dinner: "Once I took too long eating my dinner that after I was done, I couldn't have a treat. And then I got really frustrated that Daddy didn't give me a treat." Children referred to frustration regarding *inclusion in relationships with peers, parents and*

siblings, such as not being included in play, not being a good friend, or being involved in a disagreement or cheating. This theme was present in 33% of frustrated stories. For example, Sylvia described her frustration with being left out by a peer when she stated, “Yesterday Chelsea was playing with someone else and I don’t really have any more friends except Chelsea and I-, so I didn’t really know who to play with.” Children narrated frustrating experiences regarding *natural causes* including illness or injury to the body. This theme was present in 13.0% of stories. For example, Heidi described her frustration with injury in her story: “The time when I was frustrated I hurt my collarbone right up here. And I couldn’t go in the pool to swim because I broke my bone.” Children described frustrations related to *physical wellbeing*, in which the content of the frustration focused on intentional threats by others to the physical wellbeing of the self or property in one’s possession. These occurred in 9.3% of stories. Physical frustrations included wrestling, hitting, biting, knocking down toys, pushing, or breaking objects. For example, Willow described her frustration when her sister destroyed her toys when she said, “Once time I was playing outside with my Legos and then my sister comed and her knocked down all my things I was trying to make and it made me really frustrated.” One story was unclassifiable and thus coded as other (1.9%). Stories that included multiple sources of frustration were coded as both. For example, “When my brother got to play and I had to sleep cause I had a cough. He got to play with all of our friends.” was coded as both inclusion and natural causes (see Table 2).

Children described experiences with frustration that referred to frustration with varying sources, including *peers*, *parents*, *siblings* and *external forces*. Children narrated frustrating experiences in which the frustration referred to an external force, including frustration caused by inanimate forces (e.g. illness, toys falling) or in instances when it may be unclear to whom the

person or force creating the frustration refers. This theme was present in 33.3% of stories. For example, Emma was frustrated with her toys falling in the story: “When me and Daddy were building a elephant with our magnetic tiles and it fell down and broke.” Peers were the source of frustration in 29.6% of stories. For example, Mark described his frustration with a friend who wanted to have his toy: “When I was playing with a pipe thing and Jeremiah wanted it and that frustrated me.” Stories involving frustration with a parent were present in 22.2% of stories. For example, Patty describes her frustration with her mom when she states, “The time when I was feeling frustrated is when my mommy won’t let me eat ice cream on summer.” Siblings were the source of frustration in 22.2% of stories. For example, Dallas described his frustration with his sibling when he says, “My sister wouldn’t let me play with my baby brother.” One story was unclassifiable and thus coded as other (1.9%). Stories that included multiple referents of frustration were coded as both. For example, “I was feeling frustrated when my Dad and my sister were playing Legos without me” was coded as both parent and sibling (see Table 3).

How does internal state language vary by content and source of frustration?

Descriptive analyses indicated that children included the most total internal state talk in stories about inclusion/relationships ($M = 3.17$, $SD = 2.46$), followed by instrumental ($M = 2.12$, $SD = 1.86$), physical ($M = 1.80$, $SD = 1.48$), and natural causes ($M = 0.71$, $SD = 0.49$) (see Table 4). Children included the most total internal state talk when frustration referred to peers ($M = 2.69$, $SD = 1.40$) and parents ($M = 2.67$, $SD = 3.14$), followed by stories with siblings ($M = 1.92$, $SD = 1.78$), and external forces ($M = 1.56$, $SD = 1.46$).

Do children include more internal state language in frustrated stories that shift to a resolution/positive emotional tone vs. those that do not?

Descriptive analysis of emotional tone shift in the combined preschool and kindergarten sample indicated 59.3% did not shift/stayed frustrated, 33.3% shifted, and 9.3% were indeterminate; 7.4% of stories included multiple positive emotional tone shifts/resolutions. The proportion of stories that shifted to a positive emotional tone or resolution was greatest in stories about physical causes (60%), followed by inclusion/relationship-based frustrations (38.9%), instrumental causes (32%) and natural causes (14.3%) (see Table 4). Frustration stories that referred to peers shifted to a positive emotional tone/resolution most frequently (50%), followed by siblings (41.7%), external forces (27.8%), and parents (16.7%).

To test the hypothesis that children would include more internal state language in stories that shift to a positive emotional tone/resolution compared to those that do not, I conducted a 2 (Shift vs. no shift) x 2 (Internal state talk) mixed-model ANOVA using the story as the unit of analysis. The main effect for Internal state talk was not significant, $F(1,52) = .388, p = .536$, indicating that there was no overall difference in emotion talk ($M = 1.33$) compared to cognitive state talk ($M = 1.14$) in all stories. A significant main effect for shift was obtained, $F(1,52) = 5.024, p = .029$, such that there was significantly more internal state talk in stories that shifted ($M = 1.56$) compared to those that did not shift ($M = .92$). The interaction between story shift and internal state talk was not statistically significant, $F(1,52) = 2.288, p = .136$. A 2 (Shift vs. no shift) x 2 (Emotion talk valence) mixed-model ANOVA revealed that the main effect for Emotion talk valence was significant, $F(1,52) = 18.014, p < .001$, such that there was more negative emotion talk ($M = .99$) compared to positive emotion talk ($M = .35$) in all stories. Again, a significant main effect for shift was obtained, $F(1,52) = 5.664, p = .021$, such that there

was significantly more emotion talk in stories that shifted ($M = .94$) compared to those that did not shift ($M = .39$). The interaction between story shift and emotion talk valence was not statistically significant, $F(1,52) = .034, p = .854$. An independent samples t -test comparing unique emotion talk in stories that shifted ($M = 1.39, SD = 1.61$) compared to those that did not ($M = .64, SD = .76$) approached significance, $t(20.87) = 1.87, p = 0.76$, suggesting stories that shifted to a positive emotional tone/resolution contained more unique emotions than those that did not.

To examine any differences due to the preschool and kindergarten sample, I conducted two mixed-model ANOVAs, one independent samples t -test, and a chi-square test using the story as the unit of analysis. For these analyses only the first story collected from preschool children was used. A 2 (School) x 2 (Internal state talk) mixed-model ANOVA revealed that the main effect for Internal state talk was not significant, $F(1,35) = .302, p = .586$, indicating that there was no overall difference in emotion talk ($M = 1.17$) compared to cognitive state talk ($M = .98$) in all stories. A main effect for school approached statistical significance, $F(1,35) = 3.215, p = .082$, such that there was marginally more internal state talk in stories from preschoolers ($M = 1.35$) compared to kindergarteners ($M = .80$). The interaction between school and internal state talk was not statistically significant, $F(1,35) = .717, p = .403$. A 2 (School) x 2 (Emotion talk valence) mixed-model ANOVA revealed that the main effect for Emotion talk valence was significant, $F(1,35) = 11.22, p = .002$, such that all children reported more negative emotion talk ($M = .86$) compared to positive emotion talk ($M = .31$). A significant main effect for school was obtained, $F(1,35) = 19.567, p < .001$, indicating significantly more emotion talk in stories from preschoolers ($M = .86$) compared to kindergarteners ($M = .38$). The interaction between school and emotion talk valence was not statistically significant, $F(1,35) = 1.553, p = .221$. An

independent samples t-test comparing unique emotion talk in preschool stories ($M = 1.18$, $SD = 1.38$) to kindergarten stories ($M = .70$, $SD = .92$) was not statistically significant, $t(35) = 1.251$, $p = 0.219$.

I made the decision to combine the samples and use the story as the unit of analysis. It is worth noting that 50% of preschooler's narratives shifted to a positive emotional tone/resolution compared to only 9.1% of kindergarteners' narratives. I conducted a chi-square test to examine the difference in shifting between schools. The statistically significant chi-square indicated preschool children at the CDC shifted their stories significantly more than kindergarteners, ($\chi^2(1, N = 54) = 9.82$, $p = .002$). Comparison of these groups was not the focus of the study due to many differences in variables, but these findings are addressed further in the discussion.

What strategies do children use to shift their stories from frustrated to a positive emotional tone/resolution?

Frustration story shifts were able to be classified using an adapted coding scheme from Davidson & Welliver (under review) previously used to code sad stories that shifted to a positive emotional tone/resolution (see Table 1). Children used *positive reframing* as a strategy to shift their frustrated stories by highlighting the positive aspect of an experience. This strategy was present in 44.4% of stories. For example, Wes highlighted that although a store didn't have the toy he wanted, they had another desirable toy when he said, "I felt frustrated when I, when they, when Target didn't have Jack-Jack mashems [toy]. But they had different Jack-Jack things. They had PJ mask squishies [toy]." Children attempted to change the cause of the negative emotion (e.g. removing oneself from a negative situation; resolving a problem directly) through a *solution-oriented strategy*. Joint child-adult solution oriented attempts were included in this category. Solution-oriented strategies were featured in 27.8% of stories. For example, Carson

described his attempt to solve the problem of being frustrated that “When I played soccer, I couldn’t get the goal cause the other team was blocked by a goalie,” by stating, “then we, I, I came up with the ball, but the goalie was in there so I had to turn around and kick it back to Landon. And he got a goal. And he’s a part of my team.” Children used the strategy of *restoration*, in which the story includes a restoration to the original non-negative state. This strategy appeared in 16.7% of the stories. For example, Christian described his frustration when a toy was taken, then a resolution when it was returned: “One time when I was at school I was a little, I was frustrated about a toy. And then one of my friends gave it back.” Children sought or received *social, physical, instrumental or verbal support*, comfort or assurance as a strategy to reduce the negative emotion. This strategy was included in 16.7% of stories. For example, Willow’s frustration when, “her pushed me off the swing... and my knee was bleeding,” included support when, “then my mom and dad gave me a bandaid.” Children included shifts that used *no description*, in which the story may have ended on a positive note/emotional tone but the child provided no description of the resolution or what, why or how they became happy (or no longer frustrated). This strategy occurred in 11.1% of the stories. For example, Mark described a time when he became happy without a clear description of how he became so: “When I was playing with a pipe thing and Jeremiah wanted it and that frustrated me. I and then I had it then. Yes, yes, yes, yes then I really, happily had it. It’s just, that’s the end.” Stories that included multiple resolution strategies were coded as both (see Appendix C). For example, the story: “When Chelsea wasn’t playing with me anymore. On the playground. But not inside. The playground is a bigger space than inside. I went off to find her. But can I tell, um uh that was the last part of it and now I, I will tell you when I was, the part when I was happy. She came back, when she came, when she found me again and we started playing again.” received two codes.

When Sylvia “went off to find her” this was coded as a solution-oriented strategy. When “she came back...found me again and we started playing again” this was coded as restoration.

Discussion

In the present study, I explored preschool and kindergarten children’s personal narrative accounts of experiences with frustration. Children discussed frustrations attributed to inclusion/relationships, instrumental, physical and natural causes that involved peers, parents, siblings and external forces. Children demonstrated the ability to independently shift a proportion of these stories to a positive emotional tone/resolution, an ability similarly seen in sad narratives (Davidson & Welliver, under review). Consistent with previous research on sad stories, and consistent with hypotheses, children included more reports of internal states, including total emotion talk, unique emotion talk, negative emotion talk, and positive emotion talk, in stories that shifted to a positive emotional tone/resolution compared to those that did not. To resolve their frustrated stories, children used the no description, restoration, support, positive reframing, and solution-oriented strategies used to resolve sad stories in Davidson & Welliver (under review).

Content and Source of Frustration

Children narrated experiences with frustration regarding inclusion/relationships, as well as with instrumental, physical and natural causes. Sources of their frustrations included peers, parents, siblings and external forces. These themes are similar to those observed in Nolivos & Leyva’s (2013) work. In stories about “a time when you were unhappy,” children described struggles with peer conflict and wants denied, themes that parallel the inclusion/relationship content theme and instrumental content theme in the present work. The results of the present

study indicated these were the two most prominent themes in children's personal accounts of frustration. During the preschool years, children are beginning to form friendships and recognize friendship as including mutual liking and playing together, but their friendships do not yet possess an enduring quality (Hartup, 2006; Tesch, 1983). For example, when preschoolers identify their best friend, less than one-third identified the same friend one year later, and just one-fourth mentioned best friends who also named them as a best friend (Eivers, Brendgen, Vitaro & Borge, 2012). As children are exploring friendship in this flexible, constantly changing context, children may frequently be encountering experiences in which they feel left out and frustrated. Instrumental frustrations may arise as children are learning to express their own wants and desires in aims of achieving a desired object or outcome, which may clash with the wants and desires of peers, siblings, parents, and even external forces. Interestingly, these themes of inclusion/relationship-based and instrumental frustration are consistent with themes observed in Fivush and colleagues' (2003b) research on young children's stories about sadness and anger. This suggests that young children experience overlapping negative emotions in response to salient interpersonal and instrumental conflicts and, as they seek to make sense of such experiences, they demonstrate the ability to talk about them using a rich emotion vocabulary. Other less frequent, but notable occurrences of frustration included physical content and natural causes. These themes are consistent with themes in Leyva et al. (2014), suggesting children are encountering experiences in which their body or property is harmed, either intentionally by another individual or by natural causes. Natural causes of frustration may result as children sometimes get injured and sick as they explore the limits of their rapidly developing physical bodies, and spend time in frequent contact with other young peers. Past research has indicated children's conflicts with siblings are more likely to include aggression than those with peers

(DeHart, 1999), suggesting frustrations with siblings as a specific context for physical causes of frustration. In the present study, 4 of the 5 cases of physical frustrations were with siblings, suggesting the sibling relationship as a context for physical frustration.

Children included the most internal states in stories about inclusion/relationships compared to other content themes of frustration. Children referenced more feelings, thoughts and desires when their frustration was interpersonal in nature. It may be that children are processing their own emotions and cognitions more when they are in opposition to another feeling, thinking person. Relationships with significant others become increasingly important as children leave the early childhood years. They become more aware of the self in relation to others and early egocentrism continues to diminish as cognitive skills, such as perspective taking abilities, improve (Hartup, 2006). The transition from early to middle childhood brings a change in friendship as children learn that bonds can survive disagreements, thus relationships become more emotionally committed. The origins of these more enduring friendships are reflected as children make sense of their interpersonal frustrations in ways that include reference to their own and others' internal worlds.

Stories with peers as the source of frustration shifted 50% of the time compared to stories with parents that shifted 16.7% of the time. This difference may be reflective of the more egalitarian nature of child-peer relationships versus child-parent relationships. When parents are the source of children's frustrations, it may be more difficult to resolve the frustration as the child has less autonomy in the relationship. Alternatively, with equal status peers, children may have more opportunity to develop resolutions or positive shifts to their frustrating experiences (Piaget, 1932/65; Walton & Davidson, 2017). Of the stories that shifted with parents, the only strategy included was positive reframing. When frustrated with parents, children may be limited

in the strategies they can use to manage frustrated feelings. With peers, all strategies were present. The more equal status of peer relationships, as well as the significant interest in maintaining relationships with peers, seems to allow for a broader use of strategies to make sense of and resolve frustrating experiences.

More Reports of Internal States in Frustrated Stories That Shift to a Positive Emotional Tone versus Frustrated Stories That Remain Negative

As hypothesized, more internal states were included in stories that shifted to a resolution or positive emotional tone compared to those that did not shift. This finding is consistent with previous work on sad stories (Davidson & Welliver, under review; Goodvin & Romdall, 2013). Thorough reference to internal states is reflective of the emotional and cognitive processing that may be a critical element of resolving frustrated stories.

Overall children included significantly more internal state talk when shifting their stories. Similarly, children included significantly more emotion talk in stories that shifted to a positive emotional tone/resolution compared to those that did not shift. It seems by definition that resolving a story or shifting it to a positive emotional tone would require inclusion of positive emotion terms, which could drive the overall difference in emotion talk. Descriptive analyses indicated that while there was greater reference to positive emotion terms in stories that shifted, negative emotion terms were also included more in stories that shifted. These findings suggest a thorough processing of negative emotion is essential for resolving negative emotional experiences. This interpretation is consistent with previous work by Bird and Reese (2006) suggesting explanatory processing, not simple attributions, of negative emotions is critical for emphasizing the personal meaning of events and developing a more consistent self-concept.

Emotion coaching (Gottman & DeClaire, 1997) also supports the importance of validating and thoroughly processing, not simply bypassing negative emotions.

Young children's personal stories about frustration seem to include a higher proportion of cognitive terms (e.g. "I wanted that toy"; "My mom didn't want me to have ice cream"; "She cheated") compared to their stories about other negative emotional experiences. In our sample, 4-year-old children at the CDC included more cognitive states per story about frustration ($M = 1.25$, $SD = 1.44$) versus Davidson & Welliver's (under review) comparable sample of sad stories from 4-year-old children at the CDC ($M = 0.64$, $SD = 1.18$). Oppositely, total emotion terms included in the two samples of 4-year-olds for sad ($M = 1.50$, $SD = 1.34$) and frustrated ($M = 1.41$, $SD = 2.01$) stories were more similar. This supports the interpretation that the specific emotion of frustration may lend itself to greater inclusion of cognitive state language regardless of whether the story is resolved. Reminiscing on frustration may be a particularly salient context for children to integrate thoughts, desires and other cognitions with emotions.

Children from the CDC in Davidson & Welliver (under review) sample shifted their sad stories 34% of the time, whereas children in the present sample from the CDC shifted their frustrated stories 50% of the time. Although there are different children included in the samples, it is worth noting children (at the CDC) are resolving frustrated stories at a high rate. This may be due to the problem-oriented nature of frustration, and suggests frustration is a relevant context for scaffolding resolutions and positive emotional tone shifts in emotional reminiscing narratives. The early ability to resolve negative emotional experiences with caregivers is linked with social-emotional development in early childhood (Goodvin & Romdall, 2013; Leyva et al., 2014), and with wellbeing in adulthood (McAdams et al., 2001). It is possible the ability to begin to resolve

frustrated experiences independently in early childhood is also associated with social-emotional development and wellbeing.

Strategies to Resolve Frustrated Experiences

Children in the present study used a variety of strategies observed in Davidson and Welliver's (under review) study to resolve their frustrations, including no description, restoration, support, positive reframing and solution-oriented resolutions. In this sample, positive reframing was the most frequently used strategy, followed by the solution-oriented strategy. Certain types of frustration may lend to certain resolution strategies. For example, in stories where parents are the source of frustration, children were less likely to resolve them or shift to a positive emotional tone. In the few examples they did so, positive reframing was the only solution used. Comparatively, with peers, children not only resolved their stories more frequently, but they used all of the strategies to do so. This finding reflects children's motivation to resolve their peer conflicts, as they are important relationships (Hartup, 2006). It is possible with natural causes certain strategies, such as solution-oriented are less likely to occur simply out of practicality. For example, Heidi may not be able to provide a solution regarding her frustration with a broken collarbone simply due to the nature of the frustration.

The present study is limited as it only captures one (and in some cases two) experiences with frustration per child. Future work which elicits multiple stories from children may be better able to capture the range of resolution strategies used and may be able to relate flexible strategy use to emotion regulation. In adults, a large body of research has indicated the ability to flexibly implement emotion regulation strategies across varying contextual demands is linked to better mental health (Aldao & Nolen-Hoeksema, 2012; Aldao, Sheppes, & Gross, 2015). In children, development from 3 to 6-years suggests early appearing emotion regulation strategies (such as

social support) are not necessarily replaced by more sophisticated ones (such as cognitive reappraisal, i.e. positive reframing), but rather that the development of emotion regulation over time results in a wider repertoire of strategies that may be flexibly used (Nives Sala, Pons, & Molina, 2014). Narrative interventions may wish to utilize a group format in which children are exposed to one another's stories and thus can hear how various strategies may be flexibly applied to resolve or positively shift different frustrating experiences.

Contextual Comparisons

Comparison of the preschool sample from the CDC and the kindergarten sample from a public elementary school in Austin, Texas was beyond the primary aims of the study. It is worth noting, however, that preliminary analyses showed preschool children from the CDC shifted their stories to a positive emotional tone/resolution significantly more than kindergarten children. Children at the CDC used significantly more internal state language and emotion talk than kindergarteners. Descriptive analysis suggests preschool children also used more total cognitive states, unique emotion terms, negative emotion terms, and positive emotion terms than kindergarteners. When interpreted developmentally, these findings are unexpected. The context, including demographics such as socio-economic status, parental education level, marital status, primary caregiver, etc. and school values and goals, of the two samples must be considered when interpreting the differences. The CDC places primary emphasis on development of social-emotional and executive function skills, and includes a heavy focus on emotion coaching (Gottman & DeClaire, 1997) in the curriculum. Kindergarteners focus on academics such as reading, writing and math skills. Future work investigating developmental differences in narrative measures including shifting negative emotional stories to a positive emotional tone/resolution outcome would clearly prefer to control for curriculum goals and demographics.

These findings present an opportunity to explore differences in narrative measures, including the ability to shift a negative emotional experience to a positive emotional tone/resolution, based on the curriculum focus and goals of the school.

Limitations

As the present work is an exploratory study, I must note a few primary limitations of the work. The samples of 17 children from the CDC and 20 children from the public elementary school are small and situated within two particular contexts, and thus cannot generalize to all samples of children and their experiences with frustration. The combination of the two samples bolsters the small sample sizes, but also combines two contextually different groups. Due to the small sample size, inferential statistics were not possible for certain analyses. Future work may wish to explore multiple larger samples to draw conclusions across various contexts using inferential statistics. The goal of the present work was to analyze narratives of frustration with the story as the unit of analysis. Doing so, I included up to two narratives from some children. Using the story as the unit of analysis when including multiple narratives from certain children does not control for narrative features of the child. Future studies using the child as the unit of analysis may better control for individual differences in narrative style that are compounded when including certain children's narratives twice.

Implications and Conclusions

The present work provides a foundation of frustration narrative research in early childhood by demonstrating that children experience, understand, and can reminisce upon a wide variety of frustrating events at as young as 4-years-old. These children are able to independently narrate personal experiences with frustration that reference their own and others' thoughts, emotions and desires. At as young as 4-years-old, a proportion of these children also demonstrate

the ability to use a variety of complex regulatory strategies to resolve their negative emotional experiences with frustration, or shift them to a positive emotional tone. As many early childhood social-emotional programs include frustration, the present study importantly contributes to the understanding of children's direct experience with the emotion. This study provides data demonstrating children's ability to understand, process and talk about nuanced emotional experiences beyond basic emotions (sad, mad, scared). Such work encourages caregivers, educators and researchers to recognize, respect and foster these abilities. Frustration, compared to other negative emotions such as sadness, seems to be especially unique as it provides an opportunity for an integration of emotion coaching and cognitive problem solving. I hope future work will provide further evidence for the link between negative emotion resolutions in narratives and concurrent and longitudinal social-emotional development, problem-solving skills, and psychological wellbeing. Such work is critical for encouraging emotional reminiscing and personal narrative as a context for promoting optimal child development.

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Table 1.

Resolution strategies	Definition	Examples
No description	Story may have ended on a positive note/emotional tone but the child provided no description of the resolution or what, why or how they became happy (or no longer frustrated).	“When I was uh playing with a pipe thing and Jeremiah[73] wanted it and that frustrated me. <i>Uh I and then I had it then. Yes, yes, yes, yes then I really, happily had it. Uh uh it’s just, that’s the end.</i> ”
Restoration	The story includes a restoration to the original non-negative state.	“One time when I was at school I was a little, I was frustrated about a toy. <i>And then one of my friends gave it back.</i> ”
Support	Seeking or receiving social, physical, instrumental, or verbal support, comfort, or assurance to reduce the negative emotion.	“Her pushed me off the swing. And I felt mad. And, and my knee was bleeding. <i>And then my mom and dad gave me a bandaid.</i> ”
Solution-oriented	Child-driven attempts to change the cause of the negative emotion (e.g., removing oneself from a negative situation; resolving a problem directly). Joint child-adult solution oriented attempts will be included in this category.	“When I played soccer... <i>I came up with the ball. But the goalie was in there. So I had to turn around and kick it back to Landon. And he got a goal. And he’s a part of my team.</i> ”
Positive reframing	Highlighting the positive aspect of an experience.	“I felt frustrated when I, when they, when Target didn’t have Jack-Jack mashems [toy]. <i>But they, but they had different Jack-Jack things. They had PJ mask squishies [toy].</i> ”
Other	Story seems resolved, but resolution does not fit into any of the categories.	“One of my cousins, he said that um he does not, he thinks minions are called minions and I think they’re called onions. <i>But really I forgot, really they’re called minions.</i> ”

Table 2.

Frustration content	Definition	Examples
Inclusion/relationship based	The source of frustration was focused on inclusion in a relationship with another person, including peers, parents and siblings. Inclusion may have referred to not being included in play, not being a good friend, a disagreement, or cheating.	<p>“I was feeling frustrated when my Dad and my sister were playing Legos without me.”</p> <p>“Yesterday Chelsea was playing with someone else and I don’t really have any more friends except Chelsea and I-, so I didn’t really know who to play with.”</p>
Instrumental	The source of frustration was focused on a desired object or outcome. Instrumental may have included frustration regarding wanting a toy, treat, or to be successful in a task or game.	<p>“When I couldn’t get a toy that I really, really, really wanted.”</p> <p>“Once I took too long eating my dinner that after I was done, I couldn’t have a treat. And then I got really frustrated that Daddy didn’t give me a treat.”</p> <p>“And, and me and- don’t get a lot of goals and the other team does so that’s frustrating me.”</p>
Physical	The source of frustration was focused on intentional threats by others to the physical wellbeing of the self or property in one’s possession. Physical frustrations may have included wrestling, hitting, biting, knocking down toys, pushing, or breaking objects.	<p>“Once time I was playing outside with my Legos and then my sister comed and her knocked down all my things I was trying to make and it made me really frustrated.”</p> <p>“When my brother pushed me off of his bike. So then I started go wrestling him.”</p>
Natural causes	The source of frustration was focused on natural causes including illness or injury to the body.	<p>“The time when I was frustrated I hurt my collarbone right up here. And I couldn’t go in the pool to swim because I broke my bone...”</p> <p>“I couldn’t go outside cause I was sick. I was sick. I had to go to the doc... I got really, really, really, really sick. I couldn’t like even move.”</p>
Other	The story was not classifiable according to any of the above categories. Often these stories were incoherent.	

Table 3.

Frustration source	Definition	Examples
Peers	The frustration referred to a peer.	<p>“When I was playing with a pipe thing and Jeremiah wanted it and that frustrated me.”</p> <p>“When Riley didn’t want to play with me... When Christian always, always, always not be a good friend.”</p>
Parents	The frustration referred to a parent.	<p>“Last time I wanted to go outside, at the park. But my, but my Mom and Dad didn’t let me to. When it was at night time.”</p> <p>“The time when I was feeling frustrated is when my mommy won’t let me eat ice cream on summer.”</p>
Siblings	The frustration referred to a sibling or cousin.	<p>“When my sister got the, the giraffe and the zebra, but the zebra floatie that was my favorite and she took it from me.”</p> <p>“When my sister wouldn’t let me play with my baby brother.”</p>
External forces	The frustration referenced and was directed at a source or situation outside of the child that was not clearly relational. This included frustration caused by inanimate forces (e.g. illness, toys falling) or mention of frustration without referring to any specific culprit.	<p>“When I needed to cut my hair but I didn’t want to.”</p> <p>“When me and Daddy were building a elephant with our magnetic tiles and it fell down and broke.”</p> <p>“When I couldn’t get a toy that I really, really, really wanted.”</p>
Other	The story was not classifiable according to any of the above categories. Often these stories were incoherent.	

Table 4

Means (Standard Deviations) for and proportion of stories that shift to a positive emotional tone or resolution in stories based on Source of Frustration

Type of Frustration	Internal State Talk	Cognitive State Talk	Emotion Talk	Percentage of Stories That Shift
<u>Content</u>				
Inclusion/ Relationship (n = 18) (33%)	3.17 (2.46)	1.39 (1.15)	1.78 (2.51)	38.9%
Instrumental (n = 25) (46.3%)	2.12 (1.86)	1.12 (1.42)	1.00 (1.08)	32%
Physical (n = 5) (9.3%)	1.80 (1.48)	1.40 (1.52)	0.40 (0.55)	60%
Natural Causes (n = 7) (13%)	0.71 (0.49)	0.14 (0.38)	0.57 (0.54)	14.3%
<u>Source</u>				
Peers (n = 16) (29.6%)	2.69 (1.40)	1.44 (1.15)	1.25 (1.13)	50%
Parents (n = 12) (22.2%)	2.67 (3.14)	0.83 (1.47)	1.83 (2.95)	16.7%
Siblings (n = 12) (22.2%)	1.92 (1.78)	1.17 (1.53)	0.75 (0.62)	41.7%
External (n = 18) (33.3%)	1.56 (1.46)	0.89 (1.13)	0.67 (1.03)	27.8%

Note: One story was unclassified regarding both content and source of frustration and is not included in the table.

Appendix A

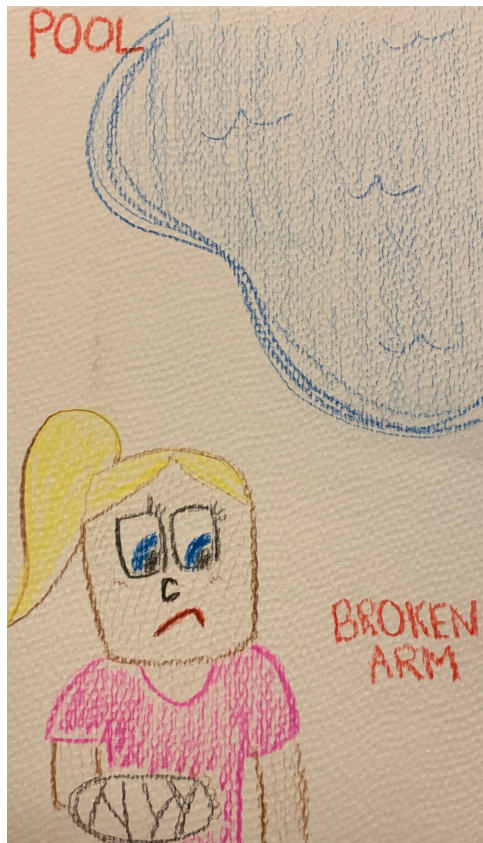
Introduction to Frustration Puppet Play

Hedgie the Hedgehog and Daniel the Tiger get in line to go play outside. Both are so excited to play on the bike. Daniel gets to the bike first and rides it happily. Harry watches and his frustration grows and grows. He asks Daniel to ride it and waits for four minutes for his turn. The minutes pass and the teacher tells them it is time to go inside so Harry doesn't get his turn on the bike. He is so frustrated and the teacher notices this. She asks him what he is feeling and why. He answers "I'm so frustrated because I really wanted to play on the bike today and I waited and I didn't get to."

Then the children are asked a few questions about frustration: Who was frustrated in the story? Why was he frustrated? Could you all show what a frustrated face looks like? What kinds of things make you frustrated?

We defined frustration as the way you feel when something doesn't go the way you want it to. Like sad and mad, feeling frustrated can make you feel not good. You can feel these all at the same time, but they are a little bit different.

Then we asked them to draw a picture of a time when they were frustrated. I showed an example of a picture I had drew of myself feeling frustrated when I broke my arm in the summer time and all my friends were swimming, but I wasn't able to. When they drew their pictures, we walked around for them to tell us about the pictures they had drawn.



Appendix B

Example Story #1

Child: Layla

Age: 54 months

Prompt: Tell me a story about a time when you were frustrated.

1. Researcher (R): Could you tell me a story about a time when you felt frustrated?
2. Layla (L): **Once, um I, I took too long eating my dinner that after I was done, I couldn't have a treat.**
3. R: Oh you couldn't have a treat?
4. L: [Nods]
5. R: Tell me more about it.
6. L: Um **and then I got really frustrated that Daddy didn't give me a treat.**
7. R: Oh then you got really frustrated that Daddy didn't give you a treat?
8. L: [Nods]
9. R: Oh my goodness. That sounds frustrating. Is there anything more about your story?
10. L: [Shakes head no.]

Example Story #2

Child: Sylvia

Age: 49 months

Prompt: Tell me a story about a time when you were frustrated.

1. Researcher (R): Could you tell me a story about a time when you felt frustrated?
2. Sylvia (S): Um **when, when Chelsea[54] um wasn't playing with me anymore.**
3. R: Oh, when Chelsea wasn't playing with you anymore?
4. S: **On the playground.**
5. R: On the playground?
6. S: **But not inside.**
7. R: But not inside, it was on the playground?
8. S: [Noise] Um mhm.
9. R: Yea.
10. S: **The playground is a bigger space than inside.**
11. R: Mhm. Could you tell me more about the time when you felt frustrated?
12. S: **I went off um to find her.**
13. S: **But can I tell,** um uh
14. S: **That was the last part of it**
15. S: **And now I, I will tell you when I was, the part when I was happy.**
16. R: Okay.
17. S: Um uhhh **she came back, when she came, when she found me again and we started playing again.**
18. R: Oh she came back and she found you and then you started playing again?
19. S: Mhm
20. R: Oh my goodness. Do you want to tell me anything more about your story?
21. S: No thanks, I don't have anything more.

Appendix C

Lesson plan

1. Reminder: When I came to the CDC before Ms. Lauren and I did a play with Hedgie and the Tiger. Hedgie was feeling frustrated because he couldn't go on the bike. If you remember this, touch your nose!
 - a. Awesome! So today, we are going to read a book about when a girl felt like Hedgie. She felt very frustrated. And then after we read, I'm going to ask each of you a question.
 - b. Listening prompt?
 2. Book reading of *The Most Magnificent Thing* with scaffolding:
 - a. Who is her assistant? – Dog
 - b. Replace all instances of “mad” with “frustrated”
 - c. Wow that looks like a frustrated face. Could you show me what your frustrated face might look like?
 - d. She explodes “with frustration!”
 - e. Sometimes it is super nice to have friends to help us feel better when we are frustrated.
 - f. It seems like after she took some time away, she could think better and see the pieces differently.
 - g. She is thinking so much. And working so hard!
 - h. So what did they make? - Scooter
 - i. Questions about the book after reading:
 - i. How was she feeling?
 1. If “mad” is the answer, link to frustration
 - ii. Why was she so frustrated?
 - iii. What did she do when she felt frustrated?
 - iv. How did she feel at the end of the story? (Proud, happy, magnificent)
 3. Meaning making of book: “We all get frustrated sometimes, just like she did. And when we feel upset or not good about something, like the girl in the story, it's important to pay attention to those feelings. Because once we figure out how we're feeling (like frustrated), then we can do something to make ourselves feel better.”
 4. Modeling – use a special object for holding when it's each person's turn
 - a. Present example – “Maybe you remember when I showed you all a picture I drew of myself when I was feeling frustrated? I had broken my arm and wasn't able to go swimming in the summer when all my friends were swimming and having so much fun. I was really frustrated because I couldn't do something that I wanted to do.”
 - b. So then I wanted to feel better.

“I told my mom I was feeling frustrated, and we thought about it. We decided to put a trash bag around my cast and tape it up realllllly tight, so that it wouldn't get wet. And then I could go swimming! And that made me not so frustrated anymore. I even felt happy.”
 5. Individual questions for children in intervention group based on stories:
 - a. Listening ears (visual cue), other people's answers might be able to help you with your question.
 - b. Questions in circle ordered by theme
- Let's all put on our thinking caps. Let's click them in. [Noises]. Now we're ready to think, think, think.

Physical

I bet everyone has probably gotten hurt before. It can be really frustrating when our body is hurting and we aren't feeling good. We might not be able to do all the things we want to do.

· Ask: Heidi, you hurt your collarbone before. I bet that was really frustrating not being able to move your arm how you wanted. Did anything happen or did you do anything that made you feel a bit better?

· Ask: Yusuf, you were feeling sick when it was snowing once, and that was really frustrating. Did anything happen or did you do anything that made you feel a little less frustrated?

· Ask: Josie, if someone accidentally bumped you and it hurt a bit, what could you do or what could happen that would make yourself feel a little better?

Desires

Another time we might feel really frustrated is when we can't get something that we really want.

· Ask: Chelsea, if you were feeling frustrated because you couldn't get a toy you wanted, what could happen or what could you do to feel a little bit less frustrated?

· Ask: Layla, I remember you telling me you really like the treats you can get after dinner. If you take too long eating dinner and can't get a treat, that can be really frustrating. What could you do or what could happen that would make yourself feel better?

· Ask: Manuel, it can be super frustrating when our toys or our trains don't do what we wanted them to do. Did anything happen or did you do anything when your trains weren't working right that made you feel a little less frustrated?

Friendship

We also might feel frustrated when one of our friends isn't around to play with us or is busy playing with someone else.

· Ask: Sylvia, when you're not able to find one of your friends on the playground that can be really frustrating. Did anything happen or did you do anything that made you feel a little less frustrated?

Lack of control

Sometimes we get frustrated for all kinds of things! We might have to do things we don't want to do that our parents or teachers want us to do.

· Ask: Emma, you told me before you were feeling frustrated when you had to cut your hair and you didn't want to. Did anything happen or did you do anything that made you feel a little less frustrated?

· Ask: ____ is there anything that happens or that you do when you are feeling frustrated that makes you feel better?

Responses:

Affirmation: "Thanks for sharing!" "Awesome!" "I like that idea." Thumbs up.

Any inappropriate responses: Solution-consequence: "What might happen if you do ____?"

Any responses already shared: Is there a different idea? "That's one way! What is a different way?"

Any unclear responses: "Why do you think that would make you feel a little less frustrated?" or "Tell us a little more about that."

I don't know response: "Think think think"

Still an I don't know response: I think we would all feel pretty frustrated if ____ happened to us. Does anyone have any ideas of how ____ could feel a little less frustrated?

6. Closing – You all were great listeners and you thought really hard about your ideas! Remember when you get frustrated/the next time you are feeling frustrated, it's ok to feel that way. We all do sometimes. But, we can also do things to make ourselves feel a little bit better and you all just shared some great ways to do that!

Appendix D

Emotional Tone Shifts and Resolutions in Frustrated Stories Coding Scheme

Coding Instructions:

It is important that you code stories carefully and only when you are alert. Make sure to re-read the coding scheme each time before you begin coding stories.

Step 1: First, read each story all the way through, once. Make sure to read carefully through the entire story, including the interviewer's comments and prompts, although, you will only code the child's story.

Step 2: On the second read, code for any shift in emotional tone or resolution in frustrated stories. Emotional tone refers to the general feel or mood of the stories. We are interested in capturing shifts in emotional tone in children's accounts of "a time when you were frustrated." Often, these frustrated stories maintain a frustrated or negative emotional tone throughout the story. Occasionally, these stories shift to a positive emotional tone, such that they appear to have a positive resolution or emphasize a positive feature of the frustrated event. Infrequently, these stories end on a somewhat neutral emotional tone, such that they do not necessarily maintain a frustrated or negative tone, but there also is not a clear resolution or shift to a more positive feel/outcome. Additionally, stories, that deviate completely from the original frustrated event topic, may have an indeterminate emotional tone. Typically, shifts are evident at the end of a child's story (e.g., a frustrated story that ends with a positive outcome), but, sometimes, frustrated stories shift to positive in the middle of the story, and then shift back to a negative/frustrated tone.

- 0 = *Doesn't shift, stays negative/frustrated* (i.e., child describes a frustrated event, such as not getting a toy they wanted, and the story ends with further description of the frustrated event and/or one's negative emotional state – e.g., "I never get to get it.")
- 1 = *Neutral, indeterminate* (the story does not necessarily end on a positive note, but also is not clearly frustrated; or, story of frustrated event veers into report of completely different topic that is not frustrated or related to the initial frustrated event.)
- 2 = *Shift to positive tone* (child's description of frustrated event shifts to a resolution, positive outcome or emotional state or a focus on a positive feature of the event – e.g., "Me and Daddy were building a elephant with our magnetic tiles and it fell down and broke...next time we did it, it didn't fall down."; "I was frustrated about a toy. And then one of my friends gave it back."; "I felt frustrated when Target didn't have Jack-Jack mashems. But they had different Jack-Jack tings. They had PJ mask squishies."; "When my sister wouldn't let me play with my baby brother...we're gonna have another one...that's gonna be happy because my sister would let me play with my baby brother again.")

Notes:

- Does not have to include reports of frustrated emotional states for story to "stay frustrated/not shift" (i.e., child continues describing the frustrated event without additional inclusion of frustrated/negative emotional states, would typically be coded as 0 (Doesn't shift, stays frustrated).

- Important to err on being conservative and not credit a child/story with shifting to positive if it is at all vague. We want to capture what else is going on in children's story-sharing when they shift their frustrated stories to resolutions or positive and we don't want to make that examination murky by including stories that are ambiguous or we think might slightly seem to shift to a positive tone.
- Do not automatically code canonicity markers (i.e., explicit markers of the expectedness or unexpectedness of events in the story, which include adverbial expressions marking regularity: "usually" or "always" or "most of the time" or "normally" happens) as a positive shift in the context of reporting about a frustrated event. E.g., the following example would be coded as "stays negative/frustrated" despite child reporting that she "loves cookies" and "usually" gets one:
 - 2. C: When I didn't get a cookie at, when, when I was....at the store and I didn't get a cookie.**
 3. CR: You were at a store and you didn't get a cookie?
 - 4. C: I love cookies!**
 5. CR: You love cookies?
 - 6. C: And I usually get one.**
- Determination of shift in emotional tone may be more than just one line of text that is positive – shift may be conveyed in multiple utterances.

Step 3: Next, read all stories coded as "2" (*shift to resolution/positive tone*) in Step 2 and code for resolution/positive shift strategy (See Table 1 below for examples)

- 0 = No description of story resolution. The story may have ended on a positive note/emotional tone but the child provided no description of the resolution or what made them happy (or no longer frustrated), why or how.
- 1 = Restoration: The story includes a restoration to the original non-negative state.
- 2 = Support (seeking/receiving): Seeking or receiving social, physical, instrumental, or verbal support, comfort, or assurance to reduce the negative emotion.
- 3 = Solution-oriented strategy: Child-driven attempts to change the cause of the negative emotion (e.g., removing oneself from a negative situation; resolving a problem directly). Joint child-adult solution-oriented attempts will be included in this category.
- 4 = Positive reframing: Highlighting the positive aspect of an experience.
- 5 = Other: Story seems to shift but does not fit into any of the categories.

Note: In accordance with Bird & Reese (2006), stories may include multiple resolutions, but each resolution utterance will only be coded for one resolution.

For example:

“When, when Chelsea[54] um wasn't playing with me anymore. On the playground. But not inside. The playground is a bigger space than inside. I went off um to find her. But can I tell, um uh that was the last part of it and now I, I will tell you when I was, the part when I was happy. Um uh she came back, when she came, when she found me again and we started playing again.”

I went off to find her = Solution-oriented

She came back...found me again and we started playing again = Restoration

“When my mommy and daddy, when my baby sister, Lea[98] hers two years old, her pushed me off the swing. And I felt mad. And, and my knee was bleeding. And then my mom and dad gave me a bandaid. And then Lea was very, very sorry. And her and then and then me and Lea went on the swing together. All done.”

My mom and dad gave me a bandaid = Support

Then Lea was very, very sorry...then me and Lea went on the swing together =
Positive reframing